

A New Eastern Pacific Species of *Eulimostraca*

(Gastropoda : Eulimidae)

BY

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(2 Plates; 3 Text figures)

INTRODUCTION

THIS PAPER DESCRIBES a new species of *Eulimostraca* from off La Jolla, California and transfers *Niso hipolitensis* Bartsch, 1917 to the genus *Eulimostraca* Bartsch, 1917. *Eulimostraca galapagensis* Bartsch, 1917 and *Eulimostraca bartschi* Strong and Hertlein, 1937 are also refigured and discussed.

BARTSCH (1917: 333) named the genus *Eulimostraca*, sole species, *E. galapagensis*, which was "dredged off Galapagos Island [sic], by the United States Bureau of Fisheries steamer Albatross, at station 2813, in 40 fathoms [73 m] on coral sand bottom, bottom temperature 80° [27° C]." His distinguishing features for *Eulimostraca* are (1) inner lip not appressed to the attenuated basal portion of the preceding whorl, (2) whorls almost flattened, (3) outer lip of aperture not expanded, and (4) presence of color markings.

A second species of *Eulimostraca* was dredged in 22 meters about 8 kilometers west of Mazatlán, Sinaloa, Mexico by the Templeton Crocker Expedition. It was described by STRONG & HERTLEIN (1937: 170) and named *E. bartschi* in honor of Dr. Paul Bartsch.

A third species of *Eulimostraca* has recently been recognized from the western Atlantic. LYONS (1978) redescribed

and transferred *Eulima subcarinata* Orbigny, 1842 to the genus *Eulimostraca*. This species occurs from the Caribbean and Yucatan to waters off Florida and North Carolina. LYONS (1978: 81) remarked that although no western Atlantic species had been previously assigned to *Eulimostraca*, several evidently belong there including *Eulima hemphilli* Dall, 1884 and several other species at present undescribed that occur in the Bahamas and off both Florida coasts.

SYSTEMATIC ACCOUNT

EULIMACEA H. & A. Adams, 1853

EULIMIDAE H. & A. Adams, 1853

Eulimostraca Bartsch, 1917

Type species: *Eulimostraca galapagensis* Bartsch, 1917 by M

Eulimostraca attilioi Hertz & Hertz, spec. nov.

(Holotype: Figures 1 to 3 — Paratype: Figures 4 to 6)

Description: The shell of this species is extremely large for the genus, sturdy, and elongate-conic. With 10½ whorls

Explanation of Figures 1 to 6

Eulimostraca attilioi Hertz & Hertz, spec. nov.

Figure 1: Holotype (SDNHM 80762); length, 7.57 mm; maximum diameter, 3.08 mm; apertural view

Figure 2: Same as in Figure 1; profile view

Figure 3: Same as in Figure 1; dorsal view

Figure 4: Paratype (Hertz collection); length, 8.90 mm; maximum diameter, 3.17 mm; apertural view

Figure 5: Same as in Figure 4; profile view

Figure 6: Same as in Figure 4; dorsal view



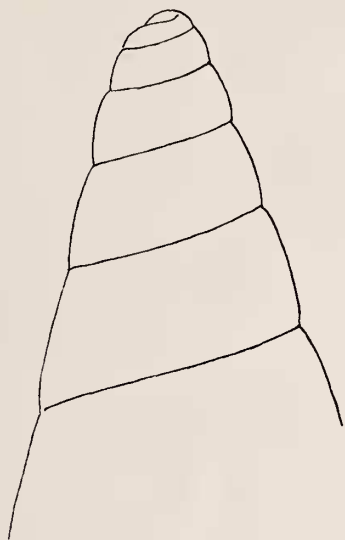


Figure 7

Detail of early whorls of *Eulimostraca attiloi* Hertz & Hertz, spec. nov.

it shows no clear demarcation between protoconch and teleoconch (Figure 7). The earliest whorls are polished white, somewhat rounded, and the remaining ones highly polished, light brown, and flattened. The first half whorl is compressed and slightly convex. Occasional series of faint, scratch-like, incremental axial lines are visible under magnification (Figure 2). The suture is weakly impressed, showing a darker brown line of color. Distinctive large circular white blotches appear behind the base of each varix-like resting place (Figures 1 to 6). The body whorl is rounded at the base with a brown line extending to the aperture. The aperture is broadly oval and pointed at both ends; the outer lip thin, flattened above, bulging centrally, and somewhat convex below. When seen in profile, the outer lip appears sinuous or s-shaped (Figure 8). The inner lip is simple, not appressed.

The umbilical area is reduced to a chink (Figure 9). The operculum is corneous.

Type locality: South of La Jolla Trench, off San Diego, California in 90 to 140 meters.

Holotype: San Diego Natural History Museum Cat. no. 80762.

Dimensions of holotype: Length 7.57 mm; maximum diameter 3.08 mm.



Figure 8

Detail of *Eulimostraca attiloi* Hertz & Hertz, spec. nov. showing profile of sinuous outer lip

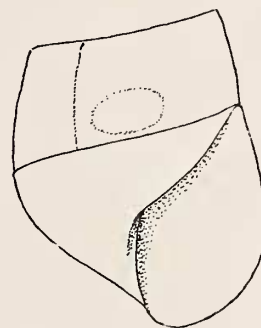


Figure 9

Detail of aperture of *Eulimostraca attiloi* Hertz & Hertz, spec. nov. showing umbilical depression

Paratype: The paratype is in the Hertz collection. It is larger than the holotype, has 10½ whorls, is almost identical to the holotype but has a chipped outer lip. Length 8.90 mm; maximum diameter 3.17 mm.

Discussion: The holotype and paratype were obtained through the generosity of Loyal J. Bibbey. They were trawled in nets by Ronnie Nicols from January to June 1979. *Eulimostraca attiloi* is extremely large for the genus, being about 2½ times the size of the largest previously reported species. In size, shape, sturdiness, and coloration it is simi-

lar to species of the genus *Niso* Risso, 1826 (type species: *Niso eburnea* Risso, 1826), but lacks the true umbilicus of *Niso*. The circular white blotches of *E. attilioi* distinguish it from all other *Eulimostraca*. Similar spots, although differing in color, have been reported (KURODA & HABE, 1950: 53, plt. 10, fig. 6) for *Amamibalcis kawamurai* Kuroda and Habe, 1950.

Eulimostraca attilioi is named for our friend and mentor, Anthony D'Attilio, who has shared with us his love and knowledge of the Mollusca.

Eulimostraca galapagensis Bartsch, 1917

(Holotype: Figures 10, 11)

The type of *Eulimostraca galapagensis* and seven additional specimens were dredged by the Albatross in 75 m off the Galapagos Islands. The holotype, housed in the National Museum of Natural History, Smithsonian Institution (Cat. no. 251281), is a poorly preserved specimen of 11 whorls. It measures 3.8 mm in length and has a maximum diameter of 1.2 mm. The original Bartsch illustration (plt. 43, fig. 1) was retouched under Bartsch's supervision and gives no indication of the poor condition of the specimen.

The shallow, narrow, umbilical depression of the holotype is a distinguishing character of the genus *Eulimostraca*. The original description of *E. galapagensis* follows. "Shell broadly elongate-conic, thin, translucent, showing the internal structure through the substance of the shell. Whorls rather high between the sutures, moderately well rounded, appressed at the summit; polished, marked by exceedingly fine incremental lines only. Suture lightly impressed. Periphery of the last whorl somewhat inflated; strongly angulated, marked by a narrow brownish band. Base short, well rounded. Aperture very broadly oval; posterior angle acute; outer lip thin, tinged with brown on the posterior

half, decidedly protracted in the middle, to form a claw-like element; inner lip strongly curved, slightly reflected, fusing only slightly, posteriorly, with the preceding whorl; parietal wall covered by a thin callus."

We have examined a lot of two well-preserved specimens (SDNHM 41228) from Corinto, Ecuador taken by the Crocker Expedition, as well as the figured type of *Eulimostraca galapagensis*. Dr. Joseph Rosewater (personal communication) of the National Museum of Natural History, Smithsonian Institution, advised that the seven additional specimens of the type lot could not be found. The reported distribution of this species is the Galapagos Islands and Ecuador.

LYONS (1978: 80-83) reassigned the western Atlantic species *Eulima subcarinata* Orbigny, 1842 to the genus *Eulimostraca* and remarked on its similarity to *E. galapagensis*.

Eulimostraca bartschi Strong & Hertlein, 1937

(Holotype: Figures 12, 13)

The type of *Eulimostraca bartschi* and seven additional specimens were dredged by the Templeton Crocker Expedition about 8 km west of Mazatlán, Sinaloa, Mexico in 22 m. The holotype, in the California Academy of Sciences (Cat. no. 6986), measures 1.8 mm in length with a maximum diameter of 0.5 mm. Following is the original description. "Shell minute, elongate conic, translucent, the internal structure showing through and forming a distinct false suture, pale flesh color, with the base light brown, showing through as a darker line between the true and false sutures on the spire; whorls nine, the first three somewhat rounded, the latter whorls becoming flattened, sutures very indistinct; periphery subangulated, base short, rounded; aperture oval with the posterior angle acute; outer lip somewhat drawn forward in the middle; inner lip curved, raised,

Explanation of Figures 10 to 16

Figure 10: *Eulimostraca galapagensis* Bartsch, 1917. Holotype (USNM 251281); length, 3.8 mm; maximum diameter, 1.2 mm; apertural view

Figure 11: Same as in Figure 10; dorsal view

Figure 12: *Eulimostraca bartschi* Strong & Hertlein, 1937. Holotype (CAS 6986); length, 1.8 mm; maximum diameter, 0.5 mm; apertural view

Figure 13: Same as in Figure 12; dorsal view

Figure 14: *Eulimostraca hipolitensis* (Bartsch, 1917). Holotype (USNM 127544); length, 3.1 mm; maximum diameter, 1.2 mm; apertural view

Figure 15: Same as in Figure 14; dorsal view

Figure 16: *Eulimostraca hipolitensis* (Bartsch, 1917). Hypotype (CAS 12744); length, approximately 3.4 mm; maximum diameter, approximately 1.2 mm; apertural view